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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,507	03/28/2005	Harold Davis	G0699.70001US00	6153
55268	7590	08/27/2007		
THE ADAMS LAW FIRM 901 RIO GRANDE BLVD. NW SUITE H262 ALBUQUERQUE, NM 87104			EXAMINER SCHEUERMANN, DAVID W	
			ART UNIT 2834	PAPER NUMBER
			MAIL DATE 08/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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**Office Action Summary**

Application No.

10/529,507

Applicant(s)

DAVIS ET AL.

Examiner

David W. Scheuermann

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 and 43-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-36, 39, 43 and 44 is/are allowed.
- 6) ☒ Claim(s) 37, 38, 40, and 45-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

Claims 1-36, 39, 43-44 are allowable. The restriction requirement among inventions I, II, III and IV, as set forth in the Office action mailed on 1/19/2007, has been reconsidered in view of the allowability of claims to the elected invention pursuant to MPEP § 821.04(a). **The restriction requirement is hereby withdrawn as to any claim that requires all the limitations of an allowable claim.** Claim 41, 42, which required all the limitations of an allowable claim, previously withdrawn from consideration as a result of the restriction requirement, were canceled by applicant in the reply filed on 4/8/2007. The canceled, nonelected claim(s) may be reinstated by applicant if submitted in a timely filed amendment in reply to this action. Upon entry of the amendment, such amended claim(s) will be examined for patentability under 37 CFR 1.104.

In view of the withdrawal of the restriction requirement as set forth above, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer

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applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### ***Drawings***

The Examiner has withdrawn the objection to the drawings in view of applicants remarks files on 7/27/2007.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 40, 45-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Whitehead, US 5168183. Whitehead, US 5168183 shows:

Apparatus for levitating a magnetic element 10 comprising: at least one magnet (any 14, 16, 18 or 20) shaped so as to generate a static magnetic field defining an oblong potential energy equilibrium location having a dependent position interaction with the magnetic element located above said at least one magnet, wherein the potential energy increases for displacements of the

magnetic element away from the equilibrium location along the major axis of the oblong equilibrium location (note oblong shape of 13, as shown in figure 5) and decreases for displacements of the magnetic element away from the equilibrium location in any direction along the minor axis of the oblong equilibrium location; a position sensor generating a feedback signal indicative of a location of a magnetic element on the minor axis; an electromagnet configured to generate a controlled magnetic field upon the passage of an electric current through the electromagnet (see figure 9), the controlled magnetic field having a gradient with respect to displacements along the minor axis of the equilibrium location; and a controller connected to receive the feedback signal from the position sensor (32) and to control the electrical current in the electromagnet to prevent the magnetic element from leaving the vicinity of the equilibrium location(see abstract).

Re claim 46, note the oblong shape of magnet 20.

Re claims 40 and 47, note the magnet ring around the z-axis formed by magnets 124, 16, 18 and 20.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehead, US 5168183 in view of WATANABE et al., JP 06086576 A. Whitehead, US 5168183 discloses:

Apparatus for levitating a magnetic element 10, the apparatus comprising: means for generating a static magnetic field (any 14, 16, 18 or 20) providing a position-dependent potential energy of interaction with a magnetic element, the static magnetic field providing an equilibrium location wherein the potential energy decreases for displacements of the magnetic element away from the equilibrium location along an unstable axis and increases for displacements of the magnetic element away from the equilibrium location in any direction perpendicular to the unstable axis (see abstract); means for generating a feedback signal indicative of the location of the magnetic element on the unstable axis; control means for directing the magnetic element to the equilibrium location by providing a [quadrupole] control magnetic field at the equilibrium location in response to the feedback signal.

Whitehead, US 5168183 does not expressly disclose, the bracketed limitation.

WATANABE et al., JP 06086576 A discloses quadrupole magnetic field, for the purpose

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of supporting an element 1 in a magnetic field and dampen vibrations. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use four poles in the device of Whitehead, US 5168183 . One of ordinary skill in the art would have been motivated to do this provide stronger control to dampen vibrations. Furthermore it would be obvious to increase the number of controlled magnetic fields to four to enhance or optimize performance. The courts have established via, *in re Aller*, 105 USPQ 238 (CCPA 1955) the courts have established that, "...even though applicant's modification results in great improvement and utility over prior art, it may still not be patentable if modification was within capabilities of one skilled in art; more particularly, where general conditions of claim are disclosed in prior art, it is not inventive to discover optimum or workable ranges by routine experimentation. Thus, this limitation of by providing a quadrupole control magnetic field at the equilibrium location a would not patentable define over the prior art.

### ***Allowable Subject Matter***

Claims 1-36, 39, 43-44 are allowed.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David W. Scheuermann whose telephone number is 571-272-2035. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached at (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



dws  
August 16, 2007



KARL TAMAI  
PRIMARY EXAMINER